ABSTRACT OF THE DISCLOSURE

Detecting loss of stream cipher synchronization between a transmitter and a receiver in a video processing system may be achieved by receiving, by the receiver, an encrypted video frame from the transmitter, obtaining an encrypted value for a selected pixel in the encrypted video frame, decrypting the encrypted pixel value using a first portion of the receiver's current key stream, re-encrypting the pixel value using a second portion of the receiver's current key stream, sending the re-encrypted pixel value from the receiver to the transmitter, obtaining, by the transmitter, a plaintext value for the selected pixel from a corresponding original video frame and encrypting the plaintext pixel value using a second portion of the transmitter's current key stream, and comparing the re-encrypted pixel value received from the receiver with the encrypted pixel value generated by the transmitter and detecting a loss of cipher synchronization when the values do not match.